

**F A X C O V E R**

**Date** Wednesday, January 16, 2008 **Number of pages** (Including cover): *12*

**To** Examiner L. Liu

**Company** U.S. Patent Office

**Your File #** U.S. Appln. No. 10/724,843

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**Our File #** M1103.70230US00

ORIGINAL DOCUMENTS SENT: ☐ 1st Class Mail ☐ Overnight Mail ☐ Air Mail ☒ Not Sent

**MESSAGE:**

Attached is an interview agenda and proposed draft response with claims.

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**PATENTS TRADEMARKS COPYRIGHTS TECHNOLOGY TRANSFERS LITIGATION**

Docket No.: M1103.70230US00  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Vivek Bhanu et al.  
Serial No.: 10/724,843  
Confirmation No.: 2170  
Filed: December 1, 2003  
For: SMART SCAN FOR BLUETOOTH PAN DEVICES  
Examiner: L. Liu  
Art Unit: 2145

**INTERVIEW AGENDA**

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Applicants respectfully request that the Examiner schedule a telephone interview. The purpose of the interview is to discuss approaches to advance this application in light of the Office Action mailed December 11, 2007. A proposed draft response, including a proposed claim amendment, is attached.

Please contact Dominik Rabiej of my office at (617)646-8430 to schedule a time for the interview.

Dated: 1/16/2008

Respectfully submitted,

By: 

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**DRAFT****RESPONSE UNDER 37 C.F.R. §1.116  
- EXPEDITED PROCEDURE-  
EXAMINING GROUP 21451**Docket No.: M1103.70230US00  
(PATENT)**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Vivek Bhanu et al.  
Serial No.: 10/724,843  
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Examiner: L. Liu  
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**AMENDMENT AFTER FINAL ACTION UNDER 37 C.F.R. 1.116**

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

**INTRODUCTORY COMMENTS**

In response to the Office Action mailed December 11, 2007, finally rejecting claims 1-21, please amend the above-identified U.S. patent application as follows:

**Amendments to the Claims** are reflected in the listing of claims which begins on page - 2 - of this paper.

**Remarks/Arguments** begin on page 6 of this paper.

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After Final Office Action of December 11, 2007

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### AMENDMENTS TO THE CLAIMS

Applicant submits below a complete listing of the current claims, including marked-up claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing. This listing of claims replaces all prior versions, and listings, of claims in the application:

#### Listing of the Claims

1. (Previously presented) A system for discovering and connecting to a remote device by a local device, the system comprising tangible computer-readable media having:  
an inquiry scan cache that is refreshed by a periodic inquiry scan;  
a page scan cache that is refreshed by way of an attempt to connect to at least one remote device; and  
a list of visible remote devices comprising entries in the inquiry scan cache, concatenated with each entry in the page scan cache that the local device successfully contacts by way of a page scan.
2. (Previously presented) The system of claim 1 wherein the remote device provides a Network Access Point (NAP) service.
3. (Previously presented) The system of claim 1 wherein the remote device provides a Group Ad-hoc Network (GN) service.
4. (Previously presented) The system of claim 1, further comprising an automatic configuration service component that polls for the list of visible remote devices and the page scan is performed in response to the configuration service polling for the list.
5. (Original) The system of claim 1 wherein the page scan cache holds a finite number of entries and is associated with an expiration policy.

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6. (Previously presented) The system of claim 1 wherein the inquiry scan cache is additionally updated by way of an attempt by a remote Bluetooth device to connect to the local device.

7. (Previously presented) A method for discovering and connecting to a remote device by a local device based on a list of visible remote devices, the method comprising:  
prior to receipt of a request for the list of visible remote devices:  
    updating an inquiry scan cache by way of a periodic inquiry scan;  
    updating a page scan cache with a corresponding entry in response to an attempt to connect to a remote device; and  
in response to a request for the list, forming the list of visible remote devices by combining at least a portion of the page scan cache with the inquiry scan cache.

8. (Previously presented) The method of claim 7 wherein forming the list of visible remote devices further comprises:  
for each entry in the page scan cache, performing a page scan, and, if the page scan was successful, adding the entry to the list of visible remote devices.

9. (Original) The method of claim 7 wherein the page scan cache holds a finite number of entries, the method further comprising, for each entry added to the page scan cache:  
    setting an expiration time for the entry;  
    if the periodic inquiry scan does not reveal the entry, reducing the expiration time; and  
    if the expiration time has occurred, removing the entry from the page scan cache.

10. (Previously presented) The method of claim 7, further comprising:  
if a remote device attempts to connect to the local device, adding an entry for the remote device to the inquiry scan cache.

11. (Previously presented) The method of claim 7 wherein the remote device provides a Bluetooth NAP service.

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12. (Previously presented) The method of claim 7 wherein the remote device provides a Bluetooth GN service.

13. (Currently Amended) The method of claim 7 wherein forming a list of visible remote devices is in response to polling by an automatic configuration service, and the method further comprises:

comparing, within the automatic configuration service, the list of visible remote devices to a list of preferred network devices to identify a preferred network device that is visible.

14. (Previously presented) A computer-readable medium storing instructions implementing a method for discovering and connecting to a remote Bluetooth device by a local Bluetooth device, the method comprising:

updating an inquiry scan cache by way of a periodic inquiry scan;

in response to an attempt is made to connect to the remote Bluetooth device, updating a page scan cache with a corresponding entry; and

forming a list of visible remote Bluetooth devices comprising a combination of entries from the inquiry scan cache and the page scan cache.

15. (Original) The computer-readable medium of claim 14 wherein forming the list of visible remote Bluetooth devices further comprises:

for each entry in the page scan cache, performing a page scan, and, if the page scan was successful, adding the entry to the list of visible remote Bluetooth devices; and

concatenating entries in the inquiry scan cache to the list of visible remote Bluetooth devices.

16. (Original) The computer-readable medium of claim 14, further comprising, for each entry added to the page scan cache:

setting an expiration time for the entry;

if the periodic inquiry scan does not reveal the entry, reducing the expiration time; and

if the expiration time has occurred, removing the entry from the page scan cache.

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17. (Original) The computer-readable medium of claim 14, further comprising:  
if a remote Bluetooth device attempts to connect to the local Bluetooth device, adding an entry for the remote Bluetooth device to the inquiry scan cache.

18. (Previously presented) Computer-readable media storing one or more modules implementing a system for execution on a local Bluetooth device for discovering and connecting to a remote Bluetooth device, comprising:

an inquiry scan cache that is refreshed by an attempt to connect to the local Bluetooth device by the remote Bluetooth device;

a page scan cache that is refreshed by way of an attempt to connect to the remote Bluetooth device; and

a list of visible remote Bluetooth devices comprising entries in the inquiry scan cache, concatenated with each entry in the page scan cache that the local Bluetooth device successfully contacts by way of a page scan.

19. (Previously presented) The computer-readable media of claim 18, wherein the local Bluetooth device comprises an operating system adapted to execute software components in either a user-mode or a kernel-mode, and the computer-readable medium further comprises a user-mode Bluetooth PAN service component.

20. (Previously presented) The computer-readable media of claim 19, wherein the local Bluetooth device comprises an operating system adapted to execute software components in either a user-mode or a kernel-mode, and the computer-readable medium further comprises a kernel-mode Bluetooth PAN driver component.

21. (Original) The computer-readable media of claim 18, further comprising an automatic configuration service component that polls for the list of visible remote Bluetooth devices.

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### REMARKS

In response to the Office Action mailed December 11, 2007, Applicant respectfully requests reconsideration. Claims 1-21 are pending for examination with claims 1, 7, 14 and 18 being independent claims. No new matter has been added.

#### The Amendment Should be Entered

The amendment to dependent claim 13 should be entered because it clarifies limitations previously in the claims and should not be regarded as raising new issues. The amendment does, however, place the application in better condition for appeal.

#### Summary of Examiner Interview

Applicants thank the Examiner for the courtesy of an interview on January @, 2008. During the interview, limitations of each of the independent claims were discussed in relation to the references cited in the Office Action of December 11, 2007.

The Amendments and remarks herein may serve as a further summary of the interview.

#### Overview of the Response

In the following sections, Applicants point out specific claim limitations that are not shown in the cited references and state reasons that the claims should be allowed.

Briefly, Applicants respectfully submit that limitations highlighted in the Amendment filed October 1, 2007, as distinguishing the references are not even mentioned in the cited references. Though the Examiner asserts that the references teach the limitations of the claim, no citation to the references is provided in the Office Action and the Office Action provides no reason that the references meet all limitations of the claims. Accordingly, a *prima facie* rejection has not been made and the rejection should be withdrawn.

#### Rejections Under 35 U.S.C. §103

Claims 1, 2, 4-11, 13-18 and 21 are rejected under 35 U.S.C. 103(a) based on Rune, U.S. Published Patent Application No. 2003/0060222 in view of Melpignano, U.S. Patent No.



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7,193,989 and Virtanen, U.S. Published Patent Application No. 2003/0124978. Applicants respectfully disagree.

Independent claim 1 recites: "a list of visible remote devices comprising entries in the inquiry scan cache, concatenated with each entry in the page scan cache that the local device successfully contacts by way of a page scan." Notably, the Office Action of December 11, 2007, asserts that Rune teaches this limitation, but no citation to any portion of the reference is provided. Rune makes no mention of using the results of these operations to form a list of visible remote devices from information in an inquiry scan cache and a page scan cache. To the contrary, Rune describes that these functions are independent. For example, paragraph 33 expressly states: "the functionality of the inquiry scan transceiver is independent of the traffic and page scan transceivers." Thus, it is clear that the reference does not describe the use of an inquiry scan cache and a page scan cache together to form a list of visible remote devices.

The secondary references do not provide any reason to modify the system describe in Rune to include a list as claimed. The secondary references are merely cited to demonstrate that aspects of page scan and inquiry scan were known and do not relate to formation of a list of visible device, as claimed.

The other independent claims should also be allowed. Independent claim 7 recites: "forming the list of visible remote devices by combining at least a portion of the page scan cache with the inquiry scan cache." Independent claim 14 recites: "forming a list of visible remote Bluetooth devices comprising a combination of entries from the inquiry scan cache and the page scan cache." Independent claim 18 recites: "a list of visible remote Bluetooth devices comprising entries in the inquiry scan cache, concatenated with each entry in the page scan cache that the local Bluetooth device successfully contacts by way of a page scan."

As understood, independent claims 7, 14 and 18 are rejected based on the same rationale as is used to reject claim 1. However, as noted above, the Office Action provides no support for an assertion that the references describe forming a list of visible remote devices as claimed. Accordingly, there is no *prima facie* case of obviousness against independent claims 7, 14 or 18 and these claims should also be allowed.

The dependent claims recite limitations that further distinguish the references, providing addition reasons that the dependent claims should be allowed. As one example, claim 13 has been amended to make clear how the list may be used according to an embodiment of the

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invention. No function meeting this limitation is discussed in Rune, further demonstrating that there is no reason that supports the assertion that the claims are obvious in light of the references. Other dependent claims also recite limitations that similarly emphasize differences. For example, claim 4 also recites how the claimed list is created.

Other types of differences are emphasized in other dependent claims. For example, claim 15 recites further details of how the claimed list is formed. Because the references do not relate to forming such a list as recited in the independent claims, they cannot provide any relevant teaching of the limitations of this dependent claim.

For all of the foregoing reasons, the claims should be allowed.

### CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Dated: February 11, 2008

Respectfully submitted,

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